Abstract of the Disclosure

A method for communicating a bit stream using turbo coding encodes each input bit in the bitstream using a single 1/3 rate turbo encoder to produce a set of three bits. One of the three bits in each set is repeated to produce a set of four bits for each input bit. A time interval between the four bits is increased before transmitting the set of four bits on a communications channel. In a receiver, the time interval between the set of four bits received via the communications channel is decreased using a de-interleaver. The received set of four bits are diversity combine into a received set of three bits, and then a single 1/3 rate turbo decoder is used to recover an output bit for each input bit.